IN THE CLAIMS

Please AMEND the claims as follows:

1-28. (Cancelled)

29. (Currently Amended) A method for producing a lymphoid cell capable of selective genetic diversification of a transgenic target nucleic acid sequence by hypermutation comprising transfecting a lymphoid cell capable of gene conversion with a genetic construct ~~containing~~ comprising said target nucleic acid sequence[[,]] into the immunoglobulin locus of said lymphoid cell, wherein said lymphoid cell comprising said target nucleic acid sequence contains no deleterious mutations in genes encoding paralogues and analogues of the RAD51 protein.

30. (Currently Amended) The method according to claim 29, wherein said ~~lymphoid cell is further capable of selective genetic diversification of said transgenic target nucleic acid sequence by a combination of hypermutation and gene conversion and said~~ genetic construct ~~containing said target nucleic acid sequence~~ further ~~includes~~ comprises ~~one or more~~ a nucleic acid sequence[[s]] capable of serving as a gene conversion donor[[s]] for said target nucleic acid sequence.

31. (Cancelled)

32-34. (Cancelled)

35. (Previously Presented) The method according to claim 29, wherein said transfecting said lymphoid cell capable of gene conversion comprises inserting said target nucleic acid sequence into said immunoglobulin locus of said lymphoid cell by targeted integration.

36.-43. (Cancelled)

44. (Previously Presented) The method according to claim 29, wherein an endogenous V-gene or a fragment thereof in said lymphoid cell is replaced with said target nucleic acid sequence.

45. (Previously Presented) The method according to claim 29, wherein said lymphoid cell is capable of homologous recombination and DNA repair.

46. (Previously Presented) The method according to claim 29, wherein said lymphoid cell is an immunoglobulin-expressing B cell.

47. (Previously Presented) The method according to claim 29, wherein said lymphoid cell is derived from chicken, sheep, cow, pig, or rabbit.

48. (Previously Presented) The method according to claim 29, wherein said lymphoid cell is a chicken Bursal lymphoma cell.

49. (Previously Presented) The method according to claim 29, wherein said lymphoid cell is a DT40 cell or a derivative thereof.

50. (Currently Amended) The method according to claim 29, wherein said target nucleic acid sequence encodes a protein or expresses a regulatory activity.

51. (Currently Amended) The method according to claim 29, wherein said target nucleic acid encodes a protein selected from the group consisting of an immunoglobulin chain, a selection marker, a DNA-binding protein ~~or fragment thereof~~, a DNA-binding protein fragment, an enzyme, ~~and~~ a receptor protein, [[or]] and a receptor protein fragment ~~thereof~~.

52. (Previously Presented) The method according to claim 29, wherein said target nucleic acid sequence is a human immunoglobulin V-gene or a part thereof.

53. (Previously Presented) The method according to claim 29, wherein said target nucleic acid sequence comprises a transcription regulatory element or an interfering RNA (RNAi) sequence.

54. (Previously Presented) The method according to claim 53, wherein said transcription regulatory element is a promoter.

55. (Previously Presented) The method according to claim 29, further comprising identifying said lymphoid cell containing said target nucleic acid sequence.

56. (Currently Amended) The method according to claim 55, wherein said identifying said lymphoid cell containing said target nucleic acid sequence comprises identifying ~~one or more~~ a protein[[s]] encoded by said target nucleic acid sequence on the surface of said lymphoid cell, within said lymphoid cell, or outside of said lymphoid cell.

57. (Currently Amended) The method according claim 30, further comprising modulating said selective genetic diversification of said transgenic target nucleic acid sequence by varying the number, the orientation, the length or the degree of homology of said nucleic acid sequence[[s]] capable of serving as a gene conversion donor[[s]].

58. (Previously Presented) The method according to claim 29, further comprising modulating said selective genetic diversification of said transgenic target nucleic acid sequence with a DNA repair or recombination factor other than a RAD51 paralogue or analogue.

59. (Currently Amended) The method according to claim [[59]] 58, wherein said DNA repair or recombination factor is a RAD54 protein.

60. (Currently Amended) A method for producing a cell capable of selective genetic diversification of a transgenic targeted nucleic acid sequence by hypermutation comprising transfecting a lymphoid cell capable of gene conversion with a genetic construct containing said target nucleic acid sequence, wherein said target nucleic acid sequence is inserted into a chromosome of said lymphoid cell[[,]] and ~~wherein~~ said genetic construct further comprises ~~one or more~~ a nucleic acid sequence[[s]] capable of directing genetic diversification.

61. (Previously Presented) The method according to claim 60, wherein said genetic construct is inserted into said chromosome of said lymphoid cell at a particular location by targeted integration.

62. (Previously Presented) The method according to claim 61, wherein said genetic construct is inserted into a chromosome of said lymphoid cell at a random chromosomal position.